



MARS

Planetary Facts:

- Mars, the 4th planet from the sun, is ~225 million km (~140 million miles) from the sun.
- Temperatures range from -129°C (-199°F) at night in the polar regions and can get up to 27°C (80°F) near the equator during the day. Average temperatures are below freezing (-63°C /-81°F).
- Volcanism was active early in Mars' history, but today volcanoes are inactive, likely extinct.
- The atmosphere is made up mostly of carbon dioxide and is extremely thin.
- Mars has surface winds of about 0 – 9 m/sec (0-20 mph) with gust of about 40 m/sec (90 mph).
- Water is thought to have flowed across the surface of Mars early in its history. Today there is no liquid water on the surface. There is ice frozen in the "soil."
- The northern and southern polar ice caps contain both frozen carbon dioxide ice and some water ice.
- No confirmed evidence of life on Mars has been detected. The search for life continues.



EARTH'S MOON

Planetary Body Facts:

- Earth's Moon is ~380,000 km (~240,000 miles) from Earth. Earth is ~150 million km (93 million miles)
- Temperatures can range from -193°C (-315°F) at night in the polar regions to 111°C (232°F) near the equator during the day.
- When the Moon first formed it was thought to be a liquid magma ocean. Volcanism was likely active early in the Moon's history, but there has been no volcanic activity for likely billions of years.
- The Moon has no atmosphere.
- There are no winds on the Moon.
- There is no liquid water on the Moon.
- There is thought to be frozen ice in craters that never receive sunlight in the polar regions of the Moon.
- Life is not thought to have ever existed on the Moon.



VENUS

Planetary Facts:

- Venus, the 2nd planet from the sun, is ~105 million km (~65 million miles) from the sun .
- Average temperatures are 464°C (867°F).
- Venus is thought to be volcanically active.
- The atmosphere is made up mostly of carbon dioxide and is extremely thick. Thick clouds prevent much sunlight from reaching the surface.
- Wind speeds range from 0.3 to 1 m/sec (~0.7 – 2.2 mph) at the surface.
- There is no surface water on Venus. There are trace amounts (tiny amounts) of water vapor in the atmosphere.
- No evidence of life on Venus has ever been detected.



MERCURY

Planetary Facts:

- Mercury, the 1st planet from the sun, is ~60 million km (~37 million miles) from the sun.
- Average temperatures are 167°C (333°F).
- Volcanism was active early in Mercury's history, but today volcanoes are likely extinct.
- There is essentially no atmosphere.
- There are no winds on Mercury.
- There is no liquid water on the surface of Mercury, however there is some evidence for frozen water ice in polar craters that are permanently shadowed from the sun.
- No evidence of life on Mercury has ever been detected.



ASTEROID VESTA

Planetary Facts:

- Vesta orbits within part of the inner asteroid belt and is approximately 374 million km (232 million miles) or ~2.5 AU from the Sun.
- Vesta is one of the largest asteroids in the Solar System. Its dimensions are ~572 km X 446 km. It has a surface area that is approximately the same size as Pakistan.
- Temperatures range from -188°C (-306°F) to ~-3°C (~27°F).
- Vesta is thought to have a metallic iron-nickel core, and with a rocky mantle and a surface crust.
- Vesta is thought to be a dry, differentiated body whose surface has been resurfaced by basaltic lava flows, possibly having had an early magma ocean like the Moon.
- Vesta does not have an atmosphere.
- There are no winds on Vesta.
- No evidence of life on Vesta has ever been detected.